

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

Claim 1 (Currently amended): A method for providing pre-processed data for the training of mining models ~~from data set training data comprising at least one set of case data, each set of case data of said at least one set of case data comprising a stored value for at least one variable from among a set of at least one variable~~, comprising:

determining at least one mining structure variable from among ~~said~~ a set of at least one variable in data set training data, the data set training data comprising at least one set of case data, each set of case data comprising a stored value for at least one variable from among the set of at least one variable;

for each set of case data, retrieving a stored value for each of said at least one mining structure variables from said data set training data;

performing mining model initial processing on said retrieved values; and

storing the results of said mining model initial processing.

Claim 2 (Previously presented): The method of claim 1, wherein said step of determining at least one mining structure variable from among said set of at least one variable comprises:

accepting creation operation data comprising data comprising the identity of said mining structure variables.

Claim 3 (Previously presented): The method of claim 2, wherein said at least one mining structure variable comprises a continuous variable, wherein said creation operation data comprises an indication regarding discretization of said continuous variable, and wherein said step of performing mining model initial processing on said retrieved values comprises discretizing said continuous variable according to said indication.

Claim 4 (Previously presented) The method of claim 3, wherein said indication comprises an indication of a number of buckets into which said continuous variable should be discretized.

Claim 5 (Previously presented) The method of claim 3, wherein said indication comprises an indication of sub-ranges into which said continuous variable should be discretized.

Claim 6 (Previously presented): The method of claim 1, wherein said stored results are associated with at least one mining model; and wherein each of said at least one mining model is trained using said stored results.

Claim 7 (Currently amended): A tangibly embodied computer readable medium comprising computer executable modules having computer executable instructions, said modules providing pre-processed data for the training of mining models ~~from data set training data comprising at least one set of case data, each of said sets of case data comprising a stored value for at least one variable from among a set of at least one variable~~, said computer executable modules comprising:

- a mining structure variable determination module for determining at least one mining structure variable from among ~~said a set of at least one variable in data set training data, the data set training data comprising at least one set of case data, each set of case data comprising a stored value for at least one variable from among the set of at least one variable~~;

- a data set training data retrieval module for each case, retrieving a stored value for each of said at least one mining structure variables from said data set training data;

- an initial processing module for performing mining model initial processing on said retrieved values; and

- a storage module for storing the results of said mining model initial processing.

Claim 8 (Previously presented): The computer readable medium of claim 7, wherein said mining structure variable determination module accepts creation operation data comprising data comprising the identity of said mining structure variables.

Claim 9 (Previously presented): The computer readable medium of claim 8, wherein said at least one mining structure variable comprises a continuous variable, wherein said creation operation data comprises an indication regarding discretization of said continuous variable, and wherein said initial processing module discretizes said continuous variable according to said indication.

Claim 10 (Previously presented): The computer readable medium of claim 9, wherein said indication comprises an indication of a number of buckets into which said continuous variable should be discretized.

Claim 11 (Previously presented): The computer readable medium of claim 9, wherein said indication comprises an indication of sub-ranges into which said continuous variable should be discretized.

Claim 12 (Previously presented): The computer readable medium of claim 9, wherein said stored results are associated with at least one mining model, and wherein each of said at least one mining model is trained using said stored results.

Claim 13 (Currently amended): An application programming interface tangibly embodied in at least one computer readable storage medium for use in connection with providing pre-processed data for the training of mining models ~~from data set training data comprising at least one set of case data, each of said sets of case data comprising a stored value for at least one variable from among a set of at least one variable~~, wherein said application programming interface receives as input creation operation data comprising data comprising the identity of mining structure variables from among ~~said a set of at least one variable in data set training data, the data set training data comprising at least one set of case data, each set of case data comprising a stored value for at least one variable from among the set of at least one variable~~; for each case, retrieves a stored value for each of said at least one mining structure variables from said data set training data; performs mining model initial processing on said retrieved values; and stores the results of said mining model initial processing.

Claim 14 (Previously presented): The application programming interface of claim 13, wherein said at least one mining structure variable comprises a continuous variable, wherein said creation operation data comprises an indication regarding discretization of said continuous variable, and wherein said application programming interface discretizes said continuous variable according to said indication.

Claim 15 (Previously presented): The application programming interface of claim 14, wherein said indication comprises an indication of a number of buckets into which said continuous variable should be discretized.

Claim 16 (Previously presented): The application programming interface of claim 14, wherein said indication comprises an indication of sub-ranges into which said continuous variable should be discretized.

Claim 17 (Previously presented): The application programming interface of claim 13, wherein a query is sent and said stored results are retrieved via at least one network.

Claim 18 (Previously presented): The application programming interface of claim 13, wherein said stored results are associated with at least one mining model, and wherein each of said at least one mining model is trained using said stored results.

Claim 19 (Currently amended): A system for providing pre-processed data for the training of mining models ~~from data set training data comprising at least one set of case data, each of said sets of case data comprising a stored value for at least one variable from among a set of at least one variable~~, said system comprising:

an application programming interface implemented at least in part by a computing device, said application programming interface (a) receiving as input creation operation data comprising data comprising the identity of mining structure variables from among said a set of at least one variable in data set training data, the data set training data comprising at least one set of case data, each set of case data comprising a stored value for at least one variable from among the set of at least one variable; (b) for each case, retrieving a stored value for each of said at least one mining structure variables from said data set training data; (c) performs mining model initial processing on said retrieved values; and (d) stores the results of said mining model initial processing; and

a database for storing said data set training data, operably connected with said application programming interface, and for returning said stored values to said application programming interface.

Claim 20 (Currently amended): A computer system for providing pre-processed data for the training of mining models ~~from data set training data comprising at least one set of case data, each of said sets of case data comprising a stored value for at least one variable from among a set of at least one variable~~, said system comprising:

determination means for determining at least one mining structure variable from among ~~said a set of at least one variable in data set training data, the data set training data comprising at least one set of case data, each set of case data comprising a stored value for at least one variable from among the set of at least one variable~~;

retrieval means for each case, retrieving a stored value for each of said at least one mining structure variables from said data set training data;

initial processing means for performing mining model initial processing on said retrieved values; and

storage means for storing the results of said mining model initial processing.

Claim 21 (Previously presented): The system of claim 20, wherein said determination means comprises:

data acceptance means for accepting creation operation data comprising data comprising the identity of said mining structure variables.

Claim 22 (Previously presented): The system of claim 21, wherein said at least one mining structure variable comprises a continuous variable, wherein said creation operation data comprises an indication regarding discretization of said continuous variable, and wherein initial processing means comprises discretization means for discretizing said continuous variable according to said indication.

Claim 23 (Previously presented): The system of claim 22, wherein said indication comprises an indication of a number of buckets into which said continuous variable should be discretized.

Claim 24 (Previously presented): The system of claim 22, wherein said indication comprises an indication of sub-ranges into which said continuous variable should be discretized.



Claim 25 (Currently Amended): The ~~application programming interface system~~ of claim 22, wherein said stored results are associated with at least one mining model, and wherein each of said at least one mining model is trained using said stored results.

Claim 26 (Currently amended): A method for the training of a mining model ~~from data set training data comprising at least one set of case data, each of said sets of case data comprising a stored value for at least one variable from among a set of at least one variable~~, comprising:

determining at least one mining structure variable from among said a set of at least one variable in data set training data, the data set training data comprising at least one set of case data, each set of case data comprising a stored value for at least one variable from among the set of at least one variable;

for each case, retrieving a stored value for each of said at least one mining structure variables from said data set training data;

performing mining model initial processing on said retrieved values;

storing the results of said mining model initial processing in a mining structure; and  
training said mining model using said stored results.

Claim 27 (Previously presented): The method of claim 26, further comprising:

storing link data indicating that said mining model has been trained on data from said mining structure.

Claim 28 (Original): The method of claim 26, further comprising:

accepting a drill through query for specified data from said mining structure and  
providing said specified data.

Claim 29 (Previously presented): The method of claim 26, wherein additional mining models are associated with said mining structure, and wherein said method further comprises:

training each of said additional mining models using said stored results.

Claim 30 (Previously presented): The method of claim 26, wherein said mining structure is treated as a first class object in a database.

Claim 31 (Currently amended): A tangibly embodied computer readable medium comprising computer executable modules having computer executable instructions, said modules training a mining model ~~from data set training data comprising at least one set of case data, each of said sets of case data comprising a stored value for at least one variable from among a set of at least one variable~~, said modules comprising:

a mining structure variable determination module for determining at least one mining structure variable from among ~~said a set of at least one variable in data set training data, the data set training data comprising at least one set of case data, each set of case data comprising a stored value for at least one variable from among the set of at least one variable~~;

a data set training data retrieval module for each case, retrieving a stored value for each of said at least one mining structure variables from said data set training data;

an initial processing module for performing mining model initial processing on said retrieved values;

a storage module for storing the results of said mining model initial processing; and  
a training module for training a mining model using said stored results.

Claim 32 (Previously presented): The computer readable medium of claim 31, said modules further comprising:

link data storage module storing link data indicating that said mining model has been trained on data from said mining structure.

Claim 33 (Original): The computer readable medium of claim 31, said modules further comprising:

drill through module for accepting a drill through query for specified data from said mining structure and providing said specified data.

Claim 34 (Previously presented): The computer readable medium of claim 31, wherein additional mining models are associated with said mining structure, and wherein said training module further trains each of said additional mining models using said stored results.

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37 CFR § 1.116**

Claim 35 (Previously presented): The computer readable medium of claim 31, wherein said mining structure is treated as a first class object in a database.